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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/671,842	09/25/2003	Michael D. Brookshire	121236.00003	9648
26707	7590	08/14/2006	EXAMINER	
QUARLES & BRADY LLP RENAISSANCE ONE TWO NORTH CENTRAL AVENUE PHOENIX, AZ 85004-2391			REESE, DAVID C	
			ART UNIT	PAPER NUMBER
			3677	

DATE MAILED: 08/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/671,842

Applicant(s)

BROOKSHIRE, MICHAEL D.

Examiner

David C. Reese

Art Unit

3677

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-5,7,8,10,13-16,18,19,21,23-25,27 and 28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-5,7,8,10,13-16,18,19,21,23-25,27 and 28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/1/2006 has been entered. Consequently, the following is the current listing of claims in the instant application:

Status of Claims

- Claims 2, 6, 9, 11-12, 17, 20, 22, 26, and 29-39 were canceled.
- Claims 1, 7-8, 10, 13, 21, 23, and 27-28 were amended.
- Claims 1, 3-5, 7-8, 10, 13-16, 18-19, 21, 23-25, and 27-28 are pending.

Election/Restrictions

[1] Amended claim 1 is directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: claims subject matter (“apex of the dome-shaped crown being star-shaped”-page 15, lines 7-8 of the spec) from figures that were not part of the originally elected species (Fig. 9). Examiner realizes that said subject matter was presented earlier via dependent claims 17 and 26 in earlier prosecution of the case, but the above issue was not recognized until now. Appropriate correction or resolve is necessary.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 1, 3-5, 7-8, and 10 withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Information Disclosure Statement

[2] The information disclosure statement filed 4/12/2006 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because the statement (page with patents, numbers, space for initials, etc...) has apparently been inadvertently omitted. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609.05(a).

Drawings

[3] The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “at least ten sets of facets” from claims 13 and 23 must be shown (in the elected figures) or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the

Art Unit: 3677

renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

[4] Claim(s) 1, 13, and 23 were previously objected to because of informalities. Applicant has successfully addressed these issues in the amendment filed on 8/1/2006. Accordingly, the objection(s) to the claim(s) 1, 13, and 23 have been withdrawn.

However, as amended:

[5] Claim 3 is objected to because of the following informalities: it is dependent upon a cancelled claim.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

[6] The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

[7] Claims 13-16 and 23-25, are rejected under 35 U.S.C. 103(a) as being unpatentable over Stafford, US-D370642.

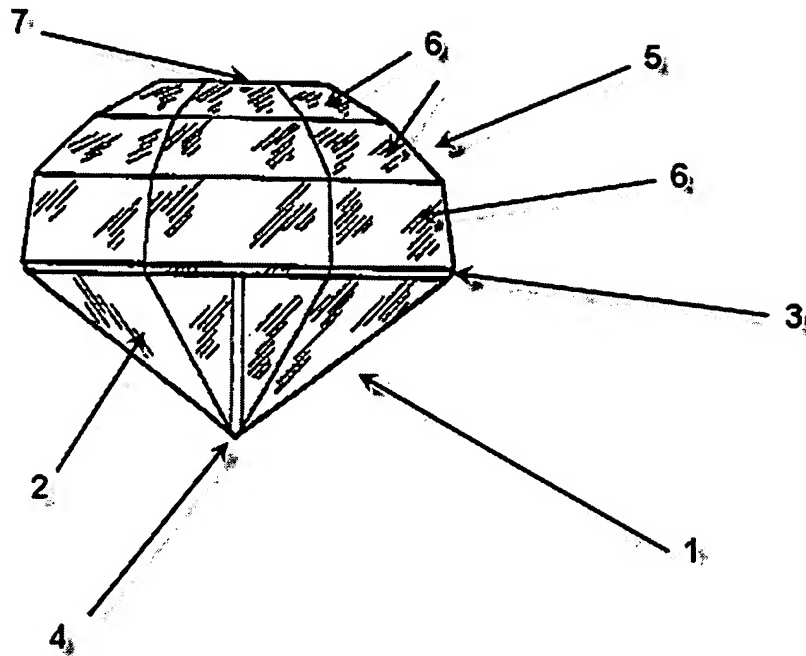
Art Unit: 3677

Although the invention is not identically disclosed or described as set forth 35 U.S.C. 102, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a designer having ordinary skill in the art to which said subject matter pertains, the invention is not patentable.

As for Claim 13, Stafford teaches of a diamond (see figure below), comprising:

a pavilion (1) extending from a girdle (3) to a culet (4), wherein the girdle (3) extends no further than a widest circumference of the crown (5) and the pavilion (1) extends no further than a widest circumference of the girdle (3); and

a crown (5) in the form of a symmetrical hemisphere having a first set of facets (first 6) disposed above the girdle (3) and a second set of facets (second 6) disposed between the first set (first 6) of facets and an apex (7) of the crown (5), wherein the first set of facets (first 6) is cut at a first angle with respect to a reference line which is tangential to the apex (7) of the crown (5) and the second set of facets (second 6) is cut at a second angle with respect to the reference line which is less than the first angle, each of the sets of facets (first and second 6) having an equal number of facets (6).



The difference between the claim and Stafford is that Stafford does not expressly disclose that the crown (5) has at least ten sets of facets between the girdle (3) and the apex (7) of the crown (5). It would have been an obvious matter of design choice to modify Stafford (adding additional sets of facets between the girdle and apex of the crown so as to go from 3 sets to at least 10 sets of facets), since applicant has not disclosed that such a particular orientation creates any unexpected result. It appears that the invention would perform equally well as the invention disclosed by Stafford. It is extremely old, well known, readily apparent and profoundly obvious to change the size, shape, number, orientation, angles, percentages, and create ranges for facets and the gemstone in its entirety as to merely alter the aesthetics of said gemstone for the corresponding and resulting properties including brilliance, radiance, etc. for the utility of mere user preference. It is also extremely well known that altering said features will produce different properties radiating from said gemstone, depending on the changes and alterations made.

Art Unit: 3677

Therein, once again, lies the pertinence behind such, as no unexpected result, viewed by one skilled in the art; will occur, with any of the above possible changes or alterations to any given gemstone.

Re: Claim 14, wherein each of the plurality of facets (2) of the pavilion (1) are symmetrically disposed and extend continuous from the girdle (3) to the culet (4).

As for Claims 15-16, and 25 (dependent upon Claim 23, see below), Stafford teaches of the above claims.

The difference between the claim and Stafford is that Stafford does not expressly disclose that the plurality of facets of the pavilion are each cut to an angle of about 40.75 degrees (Claims 15, and 25) and that said plurality totals at least sixteen in number (Claim 16).

It would have been an obvious matter of design choice to modify Stafford (by altering said angle and number of facets of the pavilion), since applicant has not disclosed that such a particular orientation creates any unexpected result. It appears that the invention would perform equally well as the invention disclosed by Stafford. It is extremely old, well known, readily apparent and profoundly obvious to change the size, shape, number, orientation, angles, percentages, and create ranges for facets and the gemstone in its entirety as to merely alter the aesthetics of said gemstone for the corresponding and resulting properties including brilliance, radiance, etc. for the utility of mere user preference. It is also extremely well known that altering said features will produce different properties radiating from said gemstone, depending on the changes and alterations made. Therein, once again, lies the pertinence behind such, as no unexpected result, viewed by one skilled in the art; will occur, with any of the above possible changes or alterations to any given gemstone.

As for Claim 23, Stafford teaches of a diamond (see figure above), comprising:
a pavilion (1) having a plurality of facets (2) disposed from a girdle (3) to a culet (4); and
a dome-shaped crown (5) disposed above the girdle (3), wherein the girdle (3) extends no further than a widest circumference of the dome-shaped crown (5) and the pavilion (1) extends no further than a widest circumference of the girdle (3), the dome-shaped crown (5) formed from a at least ten sets (in view of that discussed from Claim 13 above) of facets (6) cut with monotonically decreasing angle to form a curved contour in accordance with a dome shape from the girdle (3) to an apex (7) of the dome-shaped crown (5).

Re: Claim 24, wherein each of the plurality of facets (2) of the pavilion (1) are symmetrically disposed and extend continuous from the girdle (3) to the culet (4).

[8] Claims 18-19, 21, 27-28, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stafford, US-D370642, in view of Almaraz, US-D443,244.

Although the invention is not identically disclosed or described as set forth 35 U.S.C. 102, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a designer having ordinary skill in the art to which said subject matter pertains, the invention is not patentable.

As for Claims 18-19, 21, 27-28, and 30, Stafford teaches of the above claims.

The difference between the claim and Stafford is that the claims recite: of the first set of facets being cut about 90 degrees, the second set being cut about 75 degrees (Claims 18, and 27), the third set about 65 degrees, a forth set of facets being cut about 55 (56) and fifth set cut about

Art Unit: 3677

45 (46) degrees (Claims 19, and 28 and 10, 21, and 30, respectively), all of which with respect to a reference line which is tangential to the apex of the dome-shaped crown. Almaraz discloses a dome-shaped structure with a plurality of sets of facets (a first through fifth set), said set of facets being cut with monotonically decreasing angles; as well as each set of facets having monotonically decreasing surfaces areas. It would have been obvious to one of ordinary skill in the art, having the disclosures of Stafford and Almaraz before him at the time the invention was made, to modify the crown of Stafford to include greater than three sets of facets, as in Almaraz. One would have been motivated to make such a combination because one would want to achieve that exact design (spiral design more specifically), as shown by Almaraz in Fig. 1. Further, with respect to the exact degrees being claimed for each set of facets, as described above, it would have been an obvious matter of design choice since applicant has not disclosed that such a particular orientation creates any unexpected result. It appears that the invention would perform equally well as the invention disclosed by Stafford in view of Almaraz. It is extremely old, well known, readily apparent and profoundly obvious to change the size, shape, number, orientation, angles, percentages, and create ranges for facets and the gemstone in its entirety as to merely alter the aesthetics of said gemstone for the corresponding and resulting properties including brilliance, radiance, etc. for the utility of mere user preference. It is also extremely well known that altering said features will produce different properties radiating from said gemstone, depending on the changes and alterations made. Therein, once again, lies the pertinence behind such, as no unexpected result, viewed by one skilled in the art; will occur, with any of the above possible changes or alterations to any given gemstone.

Art Unit: 3677

Response to Arguments

[9] Applicant amendment filed 8/1/2006 regarding rejections under 35 U.S.C. 102 have been fully considered. Due to the amendment to the claims, the prior art fails to further anticipate. Accordingly, the Examiner has withdrawn all previous 102 rejections over Stafford, US-D370,642. Further, upon further consideration of the amended claims, a new ground(s) of rejection (35 U.S.C. 103) is made in view of Stafford, US-D370,642 with regard to claims 13-16 and 23-25.

Conclusion

[10] THIS ACTION IS NON-FINAL

[11] Any inquiry concerning this communication or earlier communications from the examiner should be directed to David C. Reese whose telephone number is (571) 272-7082. The examiner can normally be reached on 7:30 am-6:00 pm Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J.J. Swann can be reached at (571) 272-7075. The fax number for the organization where this application or proceeding is assigned is the following: (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

David Reese
Assistant Examiner
Art Unit 3677

DCR



8/3/06



ROBERT J. SANDY
PRIMARY EXAMINER